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2/22/2012



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 10

1200 Sixth Avenue, Suite 900
Seattle, Washington 98101-3140

February 22, 2012

Jayne Allen
Portland General Electric
121 SW Salmon Street
3WTCBR05
Portland, Oregon 97204

Re: EPA Comments on the December 30, 2011 Draft Final Remedial Investigation
Report for the Harbor Oil NPL Site in Portland, Oregon

Dear Ms. Allen:

The United States Environmental Protection Agency has reviewed the Voluntary Group's (VG) revised Remedial Investigation Report for the Harbor Oil NPL Site. There remain unresolved issues that were commented (specific comments 46, 49, and 50(c) on the Draft RI, and specific comment 8 and 46 on the Draft Final Human Health Risk Assessment) which have not been addressed in the Draft Final Remedial Investigation Report. Attached are EPA comments to address the remaining issues. Pursuant to the Administrative Settlement Agreement, response to these comments are due within 30 days of receipt of this letter. If you have any questions, I can be reached at (206) 553-1478.

Sincerely,

A handwritten signature in black ink, appearing to read "Christopher Cora".

Christopher Cora,
Project Manager

cc: Brian Cunningham, Confederated Tribes of Warm Springs
Tom Downey, Confederated Tribes of Siletz Indians
Todd Hudson, ODPH
Mike Karnosh, Confederated Tribes of the Grand Ronde
Mavis Kent, ODEQ
Rose Longoria, Confederated Tribes and Bands of the Yakama Nation
Erin Madden, Nez Perce Tribe
Rob Neeley, NOAA
Mark Stephan, HOCAG
Mike Szumski, USFWS

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U.S. Environmental Protection Agency Comments on Draft Final Harbor Oil Remedial Investigation Report, December 30, 2011

General Comments

- a. Some information presented in Section 6 and the Executive Summary is not included in the Executive Summary (ES) or the Conclusions of both HHRA and BERA Reports. Reviewers have to search and check sections in the risk assessment reports to confirm. Thus, it makes it difficult for reviewers to verify the information. See specific comments below.
 - b. There are numerous inconsistencies in the RI and the Risk Assessment reports. They should be reconciled for consistency. See specific comments below.
1. Draft Final RI, Executive Summary
 - a. Page ES-13, All Bullet Items: Please change "current or future" to "current and future" since receptors for both current and (not "or") future land-use scenarios are evaluated in the HHRA report.
 - b. Page ES-15, Last Paragraph, 4th Line from the end: please delete "3 to 1,000 times" in the phrase "...3 to 1,000 times lower than Study Area risk." This is not stated in Section 6.1 and readers/reviewers have to go into individual tables to confirm this. It is strongly suggested that it simply state "...lower than Study Area risk" to be consistent with Section 6.1.
 - c. Page ES-19, First Two Paragraphs: These two paragraphs are taken from Section 7.1.6.2 Ecological Risk Assessment, which is acceptable. These two paragraphs summarize the risk characterization for all receptors and present conclusive statements of the BERA. But these two paragraphs are not included in Section 6.2 and not in the BERA Report, which discuss risk characterization and the uncertainty for each receptor. Thus, readers/reviewers have to go through all risk tables and text discussing the individual receptors to verify the final conclusions. It would be beneficial to readers/reviewers and enhance consistency in reporting, to have the information/statements in the ES and Section 7.1.6.2 of the RI report consistent with those presented in the Section 6.2 of the RI report and in the RI report Appendix J – Baseline Ecological Risk Assessment report.
 2. Draft Final RI, Section 4.5.2.2, and Table 4-12: The text incorrectly states: "Table 4-12 summarizes concentration data for metals detected in at least one filtered or unfiltered groundwater sample. Chromium, copper, and mercury were detected only in shallow well samples. Therefore, summary statistics for intermediate and deep samples are not shown for these constituents metals". The Harbor Oil RI Database indicates numerous other metals analyzed were detected in groundwater, some at elevated concentrations, particularly Arsenic, Iron and Manganese. Revise this section and explain the cause for the elevated Iron, Manganese, and Arsenic concentrations.

U.S. Environmental Protection Agency Comments on Draft Final Harbor Oil Remedial Investigation Report, December 30, 2011

3. Draft Final RI, Section 4.5.2.2, third to last Paragraph: The discussion regarding arsenic concentrations exceeding the MCL requires additional basis for why they are not related to a site release: "These results suggest that the arsenic concentrations may be typical of shallow groundwater in the area, including areas upgradient of the Facility." There may also be site releases that are the cause of elevated arsenic concentrations. If Arsenic is migrating onto the Site from the adjacent property this needs to be ascertained. Federal Regulations (40 CFR §300.430(a)(1)(iii)(F)) require the restoration of groundwater to beneficial uses, regardless of whether the groundwater is being utilized as a current drinking water source. The RI must demonstrate the water is non-potable 1) greater than 10,000 mg/L of total-dissolved-solids (TDS), or 2) that are so contaminated by naturally occurring conditions, or by the effects of broad-scale human activity (ie: unrelated to a specific activity, or 3) in insufficient quantity (<150 gpd) for domestic use. Please revise the RI to address this comment or propose additional investigation to verify the claim that groundwater conditions are not site release related.
4. Draft Final RI, Section 5.3.1, Shallow Groundwater Bullet: The text: "A shallow saturated zone that occurs at a depth ranging from 1 to 6 ft bgs, depending upon location and time of year. The shallow saturated zone extends to a depth of approximately 8 to 15 ft bgs within a relatively permeable sand fill material." The two sentences appear to conflict, is the shallow saturated zone 1 – 15 feet? Or is the text suggesting there are two shallow saturated zones?
5. Draft Final RI, Section 5.3.3, 3rd and 4th Paragraphs: The discussion indicates that low lying areas should have higher concentrations of chemicals from early stormwater transport. However the text does not indicate whether that assumption was confirmed by the sampling of those low lying areas. Either reference whether the sampling corroborates this assumption or describe the results of the sampling for now buried low lying areas.
6. Draft Final RI, Section 6.1, Human Health Risk Assessment
 - a. Page 354: This paging is missing from the report.
 - b. Page 355: The introduction of this section states that the baseline HHRA was conducted in accordance with seven guidance documents which were listed on this page. However, these seven guidance documents were not presented in the same manner in the HHRA report. They may be scattered or buried in different sections of the HHRA report. The same information should be presented consistently in both reports.
 - c. Page 355, Section 6.1.1 Data Evaluation: states that data used in the HHRA were collected during "April/May 2008 and March/April 2009". However the HHRA Report states that data were collected in April 2008 and April 2009. Please be consistent.
 - d. Page 358, Second Paragraph, Last Sentence: this sentence should be the same as that in the ES of the HHRA Report in terms of clarity, precision, and consistency. Specifically the sentence "...were calculated using the default exposure parameters used to develop published vapor

U.S. Environmental Protection Agency Comments on Draft Final Harbor Oil Remedial Investigation Report, December 30, 2011

intrusion screening levels...." be changed to "...were calculated based on a comparison of study area concentrations with published screening levels for the vapor intrusion pathway".

- e. Page 359, First Paragraph after Bullet Items, Second Sentence: states "A total of 34 chemical or chemical groups were identified as COPCs for one or more scenarios, including 14 metals, 2 PAHs....." In addition, if this sentence is based on Table 3-2 in the HHRA Report, then the number of metals is incorrect. Although this information is presented in Section 6 of the RI, this information is not presented in the ES, and not in the Summary and Conclusions of the HHRA Report. Furthermore, please change "chemical" to "chemicals."
 - f. Page 364, Third Paragraph: this paragraph discusses the conservative approach in risk estimates for a fish consumption scenario. However, this discussion is not presented in the ES or in the Summary and Conclusions section of the HHRA Report, although pages 152-155 of the HHRA Report present uncertainty of fish consumption. It would benefit a clear understanding and provide confidence to readers if the same language is presented in both HHRA Report and this section of the RI. In addition, readers would not have to search and spend time to read through three pages to verify the conclusive statements.
7. Draft Final RI, Section 7.1.6.1, Human Health Risk Assessment
- a. Pages 393 and 394. For all bullet items: please change "current or future" to "current and future." See Comment No. 2a.
 - b. Page 401, first two paragraphs. See Comment No. 2c. These two paragraphs are presented in the ES of the RI Report. These two paragraphs summarize the risk characterization for all receptors and present conclusive statements of the BERA. But these two paragraphs are not included in Section 6.2 and not in the BERA Report that discuss risk characterization and in the uncertainty for each receptor. Thus, readers/reviewers have to go through all risk tables and text discussing the individual receptors to verify the final conclusions. The document could be enhanced and better support conclusions if the information/statements presented in the ES and Section 7.1.6.2 of the RI consistent with that presented in the Section 6.2 of the RI report and in the BERA Report.
8. Final HHRA Report EPA comment # 8, dated November 14, 2011, is not addressed. The comment was: "Reference to ODEQ default fish consumption rate needs to be updated to reflect new (175 g/day)" is not addressed in the Final Human Health Risk Assessment.
9. Draft Final RI, Section 6.2 Ecological Risk Assessment
- a. Page 365, First Paragraph: same comment as Comment No. 1 for Section 6.1. Three guidance documents are listed in this introduction section, however, these guidance documents are not presented in the same manner in the BERA Report.